UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,722	04/14/2004	Shingo Kawashima	6172.0001.US	4787

7590 01/17/2007

McGuireWoods LLP
Suite 180
1750 Tysons Boulevard
McLean, VA 22102

EXAMINER	
LEWIS, DAVID LEE	
ART UNIT	PAPER NUMBER
2629	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/823,722	KAWASHIMA ET AL.	
	Examiner	Art Unit	
	David L. Lewis	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☒ Claim(s) *6-8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. **Claims 1-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Iketsu et al. (6369516).**

As in claim 1, Iketsu et al. teaches of a method for driving an electro-luminescence display panel having electro-luminescence cells and data electrode lines and scanning electrode lines intersecting each other at a predetermined distance, each of the electro-luminescence cells being formed at the intersections thereof, **figures 2 and 7 items X, Y, and P.**

comprising the step of: applying a booting current to each of the data electrode lines at the beginning of the next horizontal drive time period, **column 4 lines 15-40, column 6 lines 46-67**

wherein the booting current: corresponds to a magnitude change of a display data signal in the next horizontal drive time period with respect to a display data signal in the current horizontal drive time period, **column 4 lines 15-40, column 6 lines 46-67**;

has instantaneous values which are kept constant, **figures 2 and 7 items 3i or 8i, figure 3,**

and has an application time amount that for the booting current is proportional to a magnitude change of each display data signal in the next horizontal drive time period with respect to the display data signal in the current horizontal drive time period, **figure 3 items S(I,j) and S(I, j+1), column 4 lines 55-67, column 7 lines 1-20** .

As in claim 2, Iketsu et al. teaches of wherein the booting current is applied in a forward direction with respect to the EL cells when the magnitude of the display data signal in the next horizontal drive time period is larger than that of the display data signal in the current horizontal drive time period, the booting current is applied in a forward direction with respect to the EL cells, **figure 2 and 7 item 3i (OFF) no discharge**.

and wherein the booting current is applied in a reverse direction with respect to the EL cells, when the magnitude of the display data signal in the next horizontal drive time period is smaller than that of the display data signal in the current horizontal drive time period, **figure 2 and 7 item 3i (ON) discharge/reverse**.

As in claim 3, Iketsu et al. teaches of wherein no booting current is applied when the magnitudes of the display data signals in the current and next horizontal drive time periods are equal to each other, **figure 2 and 7 item 3i (OFF) no discharge**.

As in claim 4, Iketsu et al. teaches of an apparatus for driving an electro-luminescence display panel, **figures 2 and 7**

comprising: data electrode lines and scanning electrode lines intersecting each other at predetermined distances, **figure 2 and 7 items X and Y**;

and a plurality of electro-luminescence cells each of the plurality of electro-luminescence cell being formed at the intersections thereof, **figure 2 and 7 item P**

wherein: a booting current is applied to each of the data electrode lines at the beginning of the next horizontal drive time period, **column 4 lines 15-40, column 6 lines 46-67**;

the booting current corresponds to a magnitude change of a display data signal in the next horizontal drive time period with respect to a display data signal in the current horizontal drive time period, **column 4 lines 15-40, column 6 lines 46-67**;

instantaneous values of the booting currents are kept constant, **figures 2 and 7 items 3i or 8i, figure 3**;

and the application time for the booting current is proportional to a magnitude change of each display data signal in the next horizontal drive time period with respect to the display data signal in the current horizontal drive time period, **figure 3 items S(I,j) and S(I, j+1), column 4 lines 55-67, column 7 lines 1-20**.

As in claim 5, Iketsu et al. teaches of a data driving unit connected to signal-input terminals of the data electrode lines for producing data current signals, corresponding to display data signals, in response to input switching control signals in order to apply the data current signals to the data electrode lines, respectively, **figure 2 and 7 item 8**

and applying the booting currents to the data electrode lines at the beginning of each horizontal drive time period, respectively, **figure 2 and 7 item 8, column 4 lines 15-40, column 6 lines 46-67**;

a scanning driving unit connected to signal-input terminals of the scanning electrode lines for sequentially applying scanning driving signals in response to input switching control signals to the scanning electrode lines, respectively, **figure 2 and 7 item 5**;

and a controller that inputs the display data signals and the switching control signals to the data driving unit and inputs the switching control signals to the scanning driving unit, respectively, **figure 3 item control signals, column 4 lines 1-15**.

Claim Objections

2. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record fails to teach of said claim limitations.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 6847342, 7113156, 2002/0024481.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: David L. Lewis

January 7, 2007